

symptoms (PCC -0.25 for positive symptoms and -0.29 for negative symptoms;  $p < 0.001$ ). Improvement in negative symptoms was highly correlated to improvement in QoL (PCC 0.33;  $p < 0.0001$ ). The regression model analysing the influence of both positive and negative symptoms on QoL at baseline was confirmative and showed a greater beta coefficient (higher influence) for negative symptoms compared with positive symptoms [(3.9 (se 0.14) versus 2.9 (se 0.13)]. Another model found that patients with greater negative symptoms at baseline experienced lower improvement in QoL (beta coefficient -0.81; se 0.11;  $p < 0.001$ ). **CONCLUSIONS:** In patients with schizophrenia negative symptoms seem to have a larger influence on self-perceived QoL than positive symptoms. Improvement in negative symptoms is highly associated with improvements in QoL.

#### PMH2

##### AValiação de Tecnologias no Tratamento da Depressão Maior: OverView Sobre a Eficácia e Segurança da Duloxetina, Venlafaxina e Trazodona Comparados à Fluoxetina

Marra LP<sup>1</sup>, Silva SN<sup>1</sup>, Costa JD<sup>2</sup>, Acurcio FA<sup>1</sup>, Guerra-Júnior AA<sup>1</sup>

<sup>1</sup>College of Pharmacy, Federal University of Minas Gerais, Belo Horizonte, Brazil, <sup>2</sup>CCATES, Federal University of Minas Gerais, Belo Horizonte, Brazil

**OBJETIVOS:** O objetivo desse estudo é revisar a evidência científica disponível sobre a eficácia e segurança dos antidepressivos de segunda geração duloxetina, venlafaxina e trazodona em comparação à fluoxetina para o tratamento do Transtorno Depressivo Maior (TDM) em adultos. **MÉTODOS:** Buscaram-se revisões sistemáticas (RS) de ensaios clínicos que comparassem a eficácia e segurança dos medicamentos duloxetina, venlafaxina e trazodona frente à fluoxetina para o tratamento do TDM nas bases de dados PUBMED, LILACS, CENTRAL e CRD. A avaliação da qualidade da evidência foi realizada por meio da ferramenta GRADE. Avaliações de Tecnologias de Saúde (ATS) e guias terapêuticos foram pesquisados em sites de agências nacionais e internacionais. O custo mensal do tratamento foi calculado para aquisições por compras públicas. **RESULTADOS:** Foram incluídas 12 RS com meta-análise. Em geral os estudos apresentaram baixa qualidade metodológica. Nove estudos apontaram superioridade do tratamento com venlafaxina frente à fluoxetina na redução de 50% dos sintomas. A razão de resposta (RR ou OR) entre os grupos venlafaxina e fluoxetina variou entre 1,12 e 1,36. Em geral, a taxa de abandono e a incidência de eventos adversos foram maiores para os grupos venlafaxina e duloxetina, comparados ao grupo fluoxetina. As 4 ATS encontradas concluíram que os antidepressivos de segunda geração possuem eficácia comparável à da fluoxetina, com maior custo associado. O tratamento com a fluoxetina corresponde ao menor valor. **CONCLUSÕES:** Verificou-se baixa qualidade da evidência dos resultados, menor custo de tratamento com o medicamento fluoxetina e recomendações das Agências de ATS e guias terapêuticos quanto a eficácia comparável entre os antidepressivos e indicação da fluoxetina no diagnóstico inicial do TDM. Recomenda-se que a fluoxetina seja o medicamento de primeira escolha para o tratamento do TDM em pacientes adultos e em caso de resposta inadequada, a venlafaxina poderia ser utilizada como segunda escolha.

#### PMH3

##### EVIDENCE OF EFFICACY AND SAFETY OF METHYLPHENIDATE IN THE TREATMENT OF CHILDREN OR ADOLESCENTS WITH ATTENTION DEFICIT DISORDER AND HYPERACTIVITY (ADHD)

Leite BF<sup>1</sup>, Vidal JS<sup>2</sup>, Silva AS<sup>3</sup>, Brito GV<sup>1</sup>, Souza KM<sup>1</sup>, Freitas MG<sup>3</sup>, Vieira NC<sup>2</sup>, Wichmann R<sup>3</sup>, Silveira DS<sup>3</sup>

<sup>1</sup>Ministério da Saúde, Brasília, Brazil, <sup>2</sup>Agência Nacional de Vigilância Sanitária, Brasília, Brazil,

<sup>3</sup>Brazilian Ministry of Health, Brasília, Brazil

**OBJECTIVES:** To evaluate the efficacy and safety of methylphenidate compared to other pharmacological alternatives or placebo in the treatment of ADHD. **METHODS:** Health technology assessments (HTA), randomized clinical trials (RCT) or systematic reviews (SR) of RCT were systematically researched. Inclusion criteria were placebo or pharmacological intervention as comparators, and children or adolescents as population. Studies about different dosages or presentations of methylphenidate were also selected. **RESULTS:** One ECR, four SR and two HTA were selected comparing methylphenidate to placebo, atomoxetine, bupropion, dexamphetamine. Methylphenidate was superior to placebo in the index of hyperactivity detected by parents and teachers, behavior during the execution of tasks, productivity in classroom and in precision of the activities. Response rates to treatment and abandonment were better as compared to atomoxetine. Compared to bupropion, methylphenidate was shown to be more effective in reducing the symptoms of ADHD. Benefits of methylphenidate on dexamphetamine are inconclusive. Low dose methylphenidate was superior to high dose in behavior improvement on the execution of tasks. There was no difference between long and short acting presentations. Regarding security: anorexia, insomnia, migraines, stomach pain and dizziness were often associated with methylphenidate. **CONCLUSIONS:** Primary studies showed methodological limitations such as low quality, short follow up and low capacity of generalization. The evaluation of the results should be cautious. It is necessary to find a balance between benefits and risks before starting the administration of methylphenidate in children and adolescents, especially in long-term treatments.

#### PMH4

##### COMPARATIVE TOLERABILITY OF NEW ANTIPSYCHOTIC DRUGS IN SCHIZOPHRENIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Tonin FS, Piazza T, Wiens A, Pontarolo R  
Universidade Federal do Paraná, Curitiba, Brazil

**OBJECTIVES:** Evaluate the tolerability of three antipsychotic drugs – asenapine, iloperidone and lurasidone – in the treatment of schizophrenia. **METHODS:** An electronic search was performed in Medline (Pubmed), Cochrane Library, Scopus, Science Direct and Scielo. A systematic review and meta-analysis of randomized controlled trials (RCTs) comparing the use of any of the above-mentioned drugs versus placebo in schizophrenia was realized. Publications available in English, Portuguese, Spanish, French and German were evaluated. The main outcome

was tolerability related to the number of withdrawals patients in each study, due to the presence of adverse events or treatment failure. The analyses were performed using software Addis (v.1.16.5) and RevMan (5.1). **RESULTS:** A total of 979 documents were initially identified and 11 of them met the selection criteria to meta-analysis. No significant differences were observed between the number of withdrawals patients due adverse events in any meta-analysis of control versus intervention. The odds ratio ranged from 0.68 (CI 0.32-1.45) to placebo versus asenapine, 1.37 (CI 0.29-1.33) to placebo versus iloperidone and 0,71 (CI 0,36-1,41) to placebo versus lurasidone. However, all drugs were superior to their respective controls for the outcome of number of withdrawals by treatment failure, with odds ratio between 1.70 (CI 1.21-2.39) and 2.36 (CI 1.36-4.07). These results suggest that there is a higher effectiveness among patients for the treatment intervention that should be evaluated through clinical responses. Heterogeneity between studies (evaluated by I<sup>2</sup> values) were low or moderate, not superior than 39,5% in any meta-analysis. **CONCLUSIONS:** Information and knowledge reunion and confrontation on the tolerability profile of a particular drug allows safer decisions over the therapeutic approach, focused on patient's interest which directly reflects on treatment follow-through and therapy effectiveness. In this study, we report evidence on asenapine, iloperidone and lurasidone greater tolerability profile compared to placebo in schizophrenia treatment.

#### MENTAL HEALTH – Cost Studies

#### PMH5

##### LAGRANGE METHOD FOR BUDGET OPTIMIZATION ANALYSIS IN RESOURCE ALLOCATION FOR ANTIPSYCHOTIC THERAPIES IN COLOMBIA

Ariza JG<sup>1</sup>, Taborda A<sup>2</sup>, Cano JF<sup>3</sup>, Roa M<sup>2</sup>

<sup>1</sup>Janssen, Bogota, Colombia, <sup>2</sup>Janssen Cilag, Bogota, Colombia, <sup>3</sup>Grupo CISNE, Bogota, Colombia

**OBJECTIVES:** To simulate the optimal budget allocation for first line antipsychotic medications in schizophrenia which minimize relapses. **METHODS:** From the health system perspective, a Lagrange budget optimization analysis was performed with the SOLVER application in order to estimate the efficient market share of first line antipsychotics (oral, depot and Long Acting Injectable - LAI). The following parameters were gathered and validated in five psychiatric institutions: target population, current market share, adherence to the treatment, risk of relapse, and the usage of outpatient and inpatient care resources. The tariffs were taken from official and institutional sources. The time frame was one year. Two scenarios were compared: the current and the optimum. **RESULTS:** Current scenario: assuming a budget constraint of USD 250,000, a target population of 381 patients and a baseline market share (oral 95.7%, depot 2.3% and LAI 2.0%), 150 relapses were avoided (savings of USD 320,086). With the Optimum scenario market share [oral 83.0%, depot 4.0% and LAI 13.0%], 208 relapses were avoided [savings of USD 445,986]. **CONCLUSIONS:** Assuming a fixed budget for first line antipsychotic treatments, increasing the usage of LAI enable a budget optimization and relapses minimization.

#### PMH6

##### COSTS OF RELAPSE OF SCHIZOPHRENIA FOR THE ARGENTINIAN HEALTH SYSTEM

Peirano I<sup>1</sup>, Tellez D<sup>2</sup>, García C<sup>3</sup>, Malvestiti RA<sup>3</sup>, Pavan E<sup>4</sup>

<sup>1</sup>Janssen, Buenos Aires, Argentina, <sup>2</sup>Janssen Cilag S.A., Bogotá, Colombia, <sup>3</sup>Deloitte LATCO, Buenos Aires, Argentina, <sup>4</sup>Deloitte Consulting, Buenos Aires, Argentina

**OBJECTIVES:** To quantify the cost of schizophrenia relapse in Argentina from the perspective of the public and third party payer. Schizophrenia is a chronic, severe, and disabling mental disorder that significantly affects a person's thought processes and emotional responsiveness. Due to the debilitating nature of the illness, people with schizophrenia have a relatively high utilization rate of health care and mental health services. Although there is currently no cure for schizophrenia, treatment is available to manage the symptoms and reduce the risk of relapse. However, poor adherence to treatment remains a significant issue with evidence showing that up to 60% of patients are partially or totally non-adherent to their prescribed oral treatments. **METHODS:** A cost of disease study was performed including direct, indirect and transference costs of relapses in schizophrenia. Bottom-up and top down methodologies were used to obtain direct costs of health care services consumed by this population. Validation of clinical criteria took place with local KOLs. Burden of disease was calculated using Disability Adjusted Life Years (DALY) supported by the CEPAL. The impact on the local economy was also included by obtaining transference costs. **RESULTS:** This study estimated that there were 415,870 patients with schizophrenia, from which 87.333 experienced some episode of relapse in Argentina. This corresponds to 21% of patients with schizophrenia. The total potential avoidable direct healthcare cost of relapse, total indirect cost over a 12 month period, and percentage of people not employed due to relapsing disease were calculated and will be presented in the publication. **CONCLUSIONS:** Argentinian decision makers in health can largely benefit by controlling relapses for these types of patients. This study is one of the first approaches at quantifying the impact of the disease and its relapse.

#### PMH7

##### COSTO DE ENFERMEDADES MENTALES PREVALENTES EN PERÚ

Mosqueira-Lovón R<sup>1</sup>, Gutierrez-Aguado A<sup>2</sup>, Escobedo-Palza S<sup>3</sup>, Timana-Ruiz R<sup>4</sup>, Sobrevilla-Ricci A<sup>1</sup>

<sup>1</sup>Abt Associates-HFG Peru, Lima, Peru, <sup>2</sup>UNMSM, Lima, Peru, <sup>3</sup>SPEAS, Lima, Peru, <sup>4</sup>SOMPEGS, Lima, Peru

**OBJETIVOS:** Estimar los costos de enfermedades mentales prevalentes (EMP) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes afiliada al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron